

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

**Claims 1-21 (Cancelled)**

**22. (Currently Amended) A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system comprising:**

**air-coupled transducer means, spaced from the medium to be inspected, which transmit optical energy for introducing to and ~~sensing~~ receiving from the medium an acoustic signal that propagates in said medium at a predetermined frequency; and means, responsive to the ~~sensed~~ received propagating acoustic signal, for detecting in the ~~sensed~~ received acoustic signal the Doppler shifted frequency representative of a flaw in the medium.**

**23. (Currently Amended) The flaw detection system using acoustic Doppler effect of claim 22 in which said transducer means includes a laser for transmitting said optical energy.**

**24. (Currently Amended) A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and**

system comprising:

air-coupled transducer means, spaced from the medium to be inspected, for introducing to and sensing from the medium an acoustic signal that propagates in said medium at a predetermined frequency said transducer means including ~~a laser vibrometer interferometer~~ an acoustic receiver for sensing the acoustic signal propagating in the medium and a transmitter that transmits optical energy.

25. (Currently Amended) A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system comprising:

air-coupled transducer means, spaced from the medium to be inspected, for inducing an acoustic signal to propagate in the medium at a predetermined frequency and ~~sensing~~ receiving the propagating acoustic signal in the medium; and said transducer means including a transmitter and a receiver and said transmitter including a laser for locally heating the medium to generate acoustic signals; and

means, responsive to the ~~sensed~~ received propagating acoustic signal, for distinguishing the Doppler shifted frequency representative of a flaw in the medium.

26. (Currently Amended) A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system comprising:

an air-coupled transducer, spaced from the medium to be inspected, that transmits optical energy for introducing to and ~~sensing~~ receiving from the medium an

acoustic signal that propagates in said medium at a predetermined frequency; and

a detector, responsive to the sensed received propagating acoustic signal, that detects in the sensed received acoustic signal the Doppler shifted frequency representative of a flaw in the medium.

28. (Currently Amended) A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system, comprising:

an air-coupled transducer, spaced from the medium to be inspected, that introduces to and senses from the medium an acoustic signal that propagates in said medium at a predetermined frequency, said transducer including a ~~laser vibrometer interferometer~~ an acoustic receiver that senses the acoustic signal propagating in the medium and a transmitter that transmits optical energy.

29. (Currently Amended) A flaw detection system using acoustic Doppler effect for detecting flaws in a medium wherein there is relative motion between the medium and system, comprising:

an air-coupled transducer, spaced from the medium to be inspected, that induces an acoustic signal to propagate in the medium at a predetermined frequency and senses receives the propagating acoustic signal in the medium, said transducer including a transmitter and a receiver, said transmitter including a laser that locally heats the medium to generate acoustic signals; and

means, responsive to the sensed received propagating acoustic signal, for distinguishing the Doppler shifted frequency representative of a flaw in the medium.